

-22-

VIRTUAL SINGLE CELL WITH FREQUENCY REUSE

ABSTRACT OF THE DISCLOSURE

5 A wireless communication network and related method for communicating with mobile terminals, including a plurality of spaced radio heads each authorized to use all frequencies in a spectrum, a memory and a controller. The memory stores, for each of the radio heads, an identification of which of the other radio heads unacceptably interfere with the each radio head. The controller controls the frequencies used by the plurality of radio heads whereby a frequency being used by one radio head is denied use to radio heads unacceptably interfering with the one radio head, and controls handoff of a mobile terminal communicating with a first radio head on a first frequency to change to communicate with a second radio head. A soft handoff is performed if none of the radio heads stored in the memory as unacceptably interfering with the second radio head are using the first frequency. A hard handoff is performed if any one of the radio heads stored in the memory as unacceptably interfering with the second radio head is using the first frequency.